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Notice of Allowability

Application No.

10/731,821

Examiner

Matthew E. Warren

Applicant(s)

NISHIJIMA, MASAOKI

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed on June 27, 2005.
2. ☒ The allowed claim(s) is/are 10,11 and 27-32.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Tom Thomas
TOM THOMAS
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

This Office Action is in response to the Amendment filed on June 27, 2005.

Allowable Subject Matter

Claims 10, 11, and 27-32 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art references, alone or in combination, do not show an RF passive circuit comprising a via-hole formed by applying a metal film on an inside wall of a hole provided through a semiconductor substrate and an inductor which is a spirally formed metal layer formed on a dielectric layer, which forms a static capacity where one part thereof faces the metal film of the via-hole, and the via-hole is formed at the center of the inductor. The closest prior art reference is newly found reference, Lemnios et al. (US 4,959,705), which shows (figs. 10A and 11) an RF passive circuit having a via-hole formed by applying a metal film (135) on an inside wall of a hole provided through a semiconductor substrate and an inductor (121) which is a spirally formed metal layer formed over the substrate and which faces the metal film of the via-hole, the via-hole being formed at the center of the inductor. Lemnios differs from the claimed invention in that the inductor/metal layer M3 (121) is not formed on the dielectric layer (105) and does not form a static capacity where one part faces the metal film of the via-hole. The inductor is formed over the dielectric and is separated from the dielectric and the via-hole by air to form an air-bridge structure.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lemnios et al. (US 4,959,705) also shows an RF passive circuit having a via-hole formed through a substrate and an inductor formed over the via-hole, the via-hole being formed at the center of the inductor. However, the inductor is not formed on a dielectric layer that covers the via hole and does not form a static capacity when it faces the metal film of the via hole.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Warren whose telephone number is (571) 272-1737. The examiner can normally be reached on Mon-Thur and alternating Fri 9:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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September 18, 2005

Tom Thomas

TOM THOMAS
SUPERVISORY PATENT EXAMINER